more payload monitoring sensors on the first of the node-enabled autonomous transport vehicles.

[3703] 94. The method of embodiment 93, wherein the first docking interface and the second docking interface comprise at least one mated set of latches that has at least one from the mated set of latches being disposed on the first of the node-enabled autonomous transport vehicles and a matching other from the mated set of latches being disposed on the second of the node-enabled autonomous transport vehicles.

[3704] 95. The method of embodiment 94, wherein the at least one from the mated set of latches on the first of the node-enabled autonomous transport vehicles comprises an actuated set of latches activated by the first mobile master node to securely engage the first docking interface to the second docking interface.

[3705] 96. The method of embodiment 94, wherein the matching other from the mated set of latches on the second of the node-enabled autonomous transport vehicles comprises an actuated set of latches activated by the second mobile master node to securely engage the first docking interface to the second docking interface.

[3706] In summary, it should be emphasized that the sequence of operations to perform any of the methods and variations of the methods described in the embodiments herein are merely exemplary, and that a variety of sequences of operations may be followed while still being true and in accordance with the principles of the present invention as understood by one skilled in the art.

[3707] At least some portions of exemplary embodiments outlined above may be used in association with portions of other exemplary embodiments to better pickup, transport, and deliver items/objects being moved, delivered, transported, or otherwise shipped using an autonomous transport vehicle, such as modular autonomous logistics vehicle transport (e.g., an exemplary MALVT bot apparatus assembly **1700** and its variations described herein). Moreover, at least some of the exemplary embodiments disclosed herein may be used independently from one another and/or in combination with one another and may have applications to devices, components, assemblies, systems, and methods not disclosed herein.

[3708] Further, those skilled in the art will appreciate that embodiments may provide one or more advantages, and not all embodiments described above necessarily provide all or more than one particular advantage as set forth here. Additionally, it will be apparent to those skilled in the art that various modifications and variations can be made to the structures and methodologies described herein. Thus, it should be understood that the invention is not limited to the subject matter discussed in the description. Rather, the present invention, as recited in the embodiments below, is intended to cover modifications and variations.

1-66. (canceled)

67. A method of on-demand building of a modular autonomous bot apparatus assembly that transports an item being shipped, the method comprising the steps of:

receiving, by an assembly server, a request for assembly of the modular autonomous bot apparatus assembly;

generating, by the assembly server, an assigned dispatch use profile that identifies a type of each of a modular mobility base, a modular auxiliary power module, a modular cargo storage system, and a modular mobile autonomy control module to be used as authorized parts of the modular autonomous bot apparatus assembly based on the request for assembly;

detachably mounting a selected modular mobility base to a selected modular auxiliary power module using an interlocking alignment interface disposed on each of the selected modular mobility base and the selected modular auxiliary power module;

detachably mounting a selected modular cargo storage system to a top of the selected modular auxiliary power module;

detachably mounting a selected modular mobile autonomy control module to a top of the selected modular cargo storage system;

securing the selected modular cargo storage system to each of the selected modular auxiliary power module and the selected modular mobile autonomy control module using a locking handle actuating at least one set of actuated latches disposed on the selected modular cargo storage system;

downloading, by the assembly server, the assigned dispatch use profile for the modular autonomous bot apparatus assembly to the selected modular mobile autonomy control module; and

authenticating each of the selected modular mobility base, the selected modular auxiliary power module, the selected modular cargo storage system according to authentication information in the assigned dispatch use profile.

68. The method of claim **67**, wherein the authenticating step comprises a component-to-component secure handshaking between proximately attached ones of the selected modular mobility base, the selected modular auxiliary power module, the selected modular cargo storage system, and the selected modular mobile autonomy control module.

69. The method of claim **68**, wherein the component-to-component secure handshaking comprises a challenge and security credential response between proximately attached ones of the selected modular mobility base, the selected modular auxiliary power module, the selected modular cargo storage system, and the selected modular mobile autonomy control module.

70. The method of claim **67**, wherein the authenticating step comprises authenticating, by the selected modular mobile autonomy control module, each of the selected modular mobility base, the selected modular auxiliary power module, and the selected modular cargo storage system according to the authentication information in the assigned dispatch use profile.

71. The method of claim **67**, wherein the authenticating step comprises a component-to-component secure handshaking between the selected modular mobile autonomy control module and each of the selected modular mobility base, the selected modular auxiliary power module, and the selected modular cargo storage system according to the authentication information in the assigned dispatch use profile.

72. The method of claim **71**, wherein the component-to-component secure handshaking comprises a challenge and security credential response between the selected modular mobile autonomy control module and each of the selected modular mobility base, the selected modular auxiliary power module, and the selected modular cargo storage system according to the authentication information in the assigned dispatch use profile.